

Appl. No.: 10/759,494
TC/A.U.: 3711 Docket No.: B03-84
Reply to Office Action of August 11, 2004

REMARKS

Claims 1,2 4-11, 13-15 and 17-19 appear in this application for the Examiner's review and consideration.

Claims 1, 4, 7, 15 and 19 have been amended. Claim 1 has been amended to recite elements from claims 3 and 12 and to limit the thickness of the water vapor barrier layer and its vapor transmission rate. Support for the amended elements is found in the original claims and the specification, on at least pages 5 and 11. Claim 7 was amended to more particularly point out the invention that the Applicant was claiming and adds subject matter regarding the addition of water or moisture that can be found in the specification at least on page 8. Claims 15 and 19 have been amended to more particularly claim the preferred embodiment of the invention. Support for these amendments can be found in the specification at least on page 11. Claim 19 was amended to have a water vapor barrier layer transmission rate of less than 0.45 grams•mm/m²•day. Support for this element can be found at least on page 5.

No new matter has been added through these amendments.

The Examiner rejected claims 1, 4, 5, 7, 12, 13, 15, 16 and 19 under the judicially created doctrine of obviousness-type double patenting over U.S. Application No. 10/103,413. However, the '413 application has been abandoned for failure to respond to the August 23, 2004 Final Office Action. Therefore, this rejection is believed to be moot and no terminal disclaimer has been provided. Should the Examiner require one, one will be provided. Although the Applicants did not agree with the Examiner's rejections in the '413 application, the case has been abandoned so that the claims could be pursued in this application.

Rejection Under 35 U.S.C. § 112, First Paragraph

Claim 7 was rejected under 35 U.S.C. § 112, first paragraph. The Examiner found that the claim language was not supported by the specification and that the language was broader in scope than what was disclosed. The claim has now been amended by adding the language out of the specification on page 8, lines 18-19 and 30-31. Thus, the claim language is fully supported by the specification.

The rejection under 35 U.S.C. § 112, first paragraph, is therefore believed to have been overcome. Applicants respectfully request reconsideration and withdrawal thereof.

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Rejection Over U.S. Patent No. 6,232,389 In View of U.S. Patent No. 5,984,806

Claims 1, 2, 8, 9, 11, 12, 15 and 16 were rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,232,389 in view of U.S. Patent No. 5,984,806. Regarding this rejection, the Examiner found that the '389 patent discloses a barrier coating for use in golf balls. While the '389 patent is specifically directed to the use of (a) an elastomeric polymer (preferably butyl-containing), (b) a dispersed exfoliated layered filler and (c) at least one surfactant, the Examiner found that the '389 patent "notes that polysulfide may be used to form the coating." The Examiner also found that the curing temperature is not "critical" to the invention since the reference discloses that the material can be uncured, partially cured or fully cured. Finally, the Examiner notes that the '389 patent does not teach a thickness for the barrier layer.

With regards to the '806 patent, the Examiner found that the reference teaches the use of aluminum flakes or filler and that it would have been obvious for one of ordinary skill in the art to incorporate the flakes disclosed in the '806 patent in order to increase the moment of inertial of the ball.

As set forth in amended claim 1, the present invention is directed to a golf ball comprising a cover layer encasing subassembly made of a barrier layer encasing a core. The subassembly has a hardness of less than 60 Shore D. The barrier layer has a water vapor transmission rate of less than about 0.6 grams•mm/m²•day and less than the moisture vapor transmission rate of ionomer resin and has a thickness of about 0.001 inches to about 0.05 inches. The barrier layer is made of a composition comprising at least one curable material and flakes, particularly aluminum flakes, iron oxide flakes, micaceous flakes, flaked glass, leafing aluminum flakes, or graphite flakes. The curable material is particular polysulfide comprising a polymer with a recurring unit of RSS, where R is a divalent organic radical, and SS is a disulfide linkage. More particularly, the composition includes polymers comprising a recurring structure of S-CH₂-CH₂-O-CH₂-O-CH₂-CH₂-S and polysulfides having an average of at least about 1.8 sulfur atoms per sulfide linkage.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation to modify the reference or combine the teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be found in the prior art, not in Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

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While the Applicants understand the combination of the references made by the Examiner, the Applicant disagrees with the conclusions drawn. More particularly, the '389 patent specifically teaches a barrier layer and this layer is used as an intermediate layer in golf balls. There is no specific construction disclosed or suggested by the '389 patent except for the fact that the layer can be used on a surface or between 2 surfaces. The '806 patent on the other hand, discloses a very particular ball having a high moment of inertia and a high coefficient of restitution. The '806 patent specifically discloses an invention "directed to improved multi-layer golf ball compositions and the resulting regulation balls produced using those compositions." Col. 8, lines 45-47. The patent discloses metal particles, or other heavy weight filler that are preferably included in a relatively thick inner cover layer of a three-piece, multi-layered golf ball. Col. 8, lines 47-53. The patent also states that the multi-layer golf ball covers of the invention include a first or inner layer or ply of a hard, high modulus material having a hardness of at least 60 and preferably 65 or more on a Shore D scale. Col. 9, lines 1-5. With this type of construction, the patent argues that the ball has improved C.O.R. and greater travel over balls with a single cover layer.

The problem is that the combination of the '389 and '806 patents results in a multi-layer ball as specifically stated in the '806 patent with a barrier layer as taught by the '389 patent somewhere therein. However, the addition of the barrier layer as suggested by the Examiner fails to add the flakes of the '806 reference into the material of the '389 patent. Furthermore, it is not evident that the barrier layer can be added to the construction of the '806 patent without changing the ball properties. Specifically, the '806 patent teaches the use of a high acid ionomer inner cover that is harder than 60 Shore D and preferably, greater than 65 Shore D, but the claimed invention herein has a subassembly that has a hardness of less than 60 Shore D. Moreover, '389 patent material is suggested to be used as a layer on the surface of the ball or as a surface between layers. There is no particular suggesting of where to use it. Thus, the Examiner must find some suggestion to use the material as an inner layer. However, if the Examiner replaces the high acid inner cover layer of the '806 patent with the material of the '389 patent, not only would he be changing the construction of the ball, but also the functionality of the barrier layer.

Furthermore, the '806 patent specifically teaches that the inner cover of the multi-layer ball should be thin and hard. The present claims are directed to just the opposite. The claimed barrier layer is soft, such that the subassembly is less than 60 Shore D and the layer is thin, i.e., between 0.001 and 0.05 inches. The purpose of the claimed barrier layer and the inner cover of the '806 patent are very different. The barrier layer has a low water vapor transmission rate, lower than an

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ionomer, to be used in a golf ball such as one consisting of a urethane cover, a core and a water vapor barrier layer. The '806 inner cover is a thick high acid inner cover for improved C.O.R. and has heavy weight filler to increase the moment of inertia. Thus, the combination of the '389 patent and the '806 patent clearly fail to suggest the invention as set forth in amended claim 1.

Furthermore, claims 15 and 19 are directed to balls having a core, a water vapor barrier layer and a cover. Claim 15 is directed to a ball with a urethane cover, a core and a barrier layer having a water vapor transmission rate of less than about 0.6 grams•mm/m²•day. The claim states that the barrier layer thickness is 0.01 inches to 0.05 inches, and barrier layer comprises at least one curable material and flakes. Again, adding the barrier layer suggested in the '389 patent to the construction of the '806 patent, if that is even feasible, does not suggest the claimed invention. The resultant ball having at least 4 layers with a high acid inner cover would be significantly different than the claimed ball. For at least this reason, claim 15 is also believed to be patentable over the cited references.

The Examiner rejected claims 3-6, 10 and 19 in over the references cited above in further view of U.S. Patent No. 3,714,132. Claim 19 is patentable for similar reasons as claim 15, but also for the fact that the Examiner cannot demonstrate whether the material set forth in U.S. Patent No. 3,714,132 can be utilized in the constructions set forth above. The Examiner notes that the '132 patent teaches the use of a polyalkylene polysulfide, but does not disclose where there is suggestion that the material is applicable for the golf ball purpose. It appears that the Examiner is using the Applicants' invention as a template to piece together pieces of prior art. The Applicant notes that the '132 patent does not suggest that it can be used as a layer for a golf ball or even how it could be incorporated. As set forth above, the '389 and '806 references disclose very conflicting materials that are not easily combined. This combination, in conjunction with a material that is used to form a rubbery sealant or adhesive, does not suggest the combination of elements as set forth in the Applicants' claims.

The rejections under 35 U.S.C. § 103(a) are believed to have been overcome for at least the above reasons. Applicants respectfully request reconsideration and withdrawal thereof.

Conclusion

Based on the remarks set forth above, Applicants believe that all of the rejections have been overcome and the claims of the subject application are in condition for allowance. Should the Examiner have any further concerns or believe that a discussion with the Applicants' attorney

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would further the prosecution of this application, the Examiner is encouraged to call the attorney at the number below.

No fee is believed to be due for this submission. However, should any required fees be due, please charge them to Acushnet Company Deposit Account No. 502309.

Respectfully submitted,

1-11-05

Date



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